

REMARKS/ARGUMENTS

The present communication is responsive to the Official Action mailed January 26, 2005 finally rejecting all the claims currently pending in the application; namely, claims 1, 4-7 and 10-23. Of these claims, claims 1, 7 and 13 are independent. All the remaining claims depend from either claim 1, 7 or 13.

A one-month extension of the term to respond, up to and including May 26, 2005 is filed concurrently herewith.

Claim 1 has been amended to recite, "a memory for storing said received transport stream data and for pre-storing a bit-rate value based on said sport stream data and corresponding to a source of origin of the broadcast; [and] a processing unit which determines an optimal buffer size in accordance with said bit-rate value."

Claim 7 has been amended to recite, "determining an optimal buffer size in the memory in accordance with a bit-rate value pre-stored in memory, the bit-rate value corresponding to a source of origin of the received transport stream data."

Claim 13 has been amended to recite, "determining an optimal buffer size in the memory in accordance with a bit-rate value pre-stored in memory, the bit-rate value identifying the origin of the broadcast and a data rate associated with the received transport stream data."

Support for the foregoing amendments to claims 1, 7 and 13 may be found by reference to, for example, paragraphs 0003 and 0014 to 0015 of the specification. Accordingly, applicants respectfully submit that no new matter is added by these amendments.

In the Official Action, the Examiner maintained his rejection of all the pending claims under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent Nos. 5,892,508 to Howe et al. ("Howe"); 5,978,855 to Metz et al. ("Metz"); 5,684,791 to Raychadhuri et al. ("Raychadhuri"); and 6,212,632 to Surine et

al. ("*Surine*"). Applicants respectfully submit that in view of the foregoing amendments to claims 1, 7 and 13, the Examiner's rejection is now moot.

In particular, the references do not teach or suggest, individually or when combined, "a memory for storing said received transport stream data and for pre-storing a bit-rate value based on said transport stream data and corresponding to a source of origin of the broadcast," as is recited in claim 1. Further in that regard, none of the references contain even the slightest suggestion of "a processing unit which determines an optimal buffer size in accordance with said bit-rate value and which reserves, in said memory, a storage area having said optimal buffer size in response to a power-on signal," as is also recited in claim 1.

With regard to claim 7, the references likewise do not teach or suggest, "determining an optimal buffer size in the memory in accordance with a bit-rate value pre-stored in memory, the bit-rate value corresponding to a source of origin of the received transport stream data, and in response to a power-on signal generated by the broadcast receiver."

With regard to claim 13, the references do not teach or suggest, "determining an optimal buffer size in the memory in accordance with a bit-rate value pre-stored in memory, the bit-rate value identifying the origin of the broadcast and a data rate associated with the received transport stream data."

As both *Metz* and *Raychadhuri* are focused on ATM systems, they do not discuss or suggest pre-storing a value that corresponds to a source of origin of a received transport stream or broadcast. As such, neither *Raychadhuri* nor *Metz* suggest determining an optimal buffer size based on such a pre-stored bit-rate value as is claimed by each of the combinations recited in claims 1, 7 and 13. *Howe* and *Surine* certainly do not make up for the deficiencies in *Raychadhuri* and *Metz*.

The Examiner also indicated that applicants' "arguments filed 9/21/04 have been fully considered but they are not persuasive." (Official Action at pg. 2.) (*Id.*)

In particular, in responding to applicants' previous argument that "loading up a buffer program upon device start up as taught by Surine is not suggestive of a processor unit reserving a storage area having said optimal buffer size in response to a power on signal," the Examiner asserts that since "Surine teaches that the buffer sizing occurs in RAM 315 (storage area) after the device receives a power on signal, it meets the limitation of a processor reserving a storage area in response to a power on signal." (*Id.* at pg. 4.)

Applicants respectfully disagree with the Examiner's line of reasoning and conclusions.

*Surine* manages memory by decompressing the most frequently used software or functions 416 stored in ROM 310, loading the decompressed software into unoccupied portions of RAM 315 and running the decompressed software from the unoccupied portions. (*Surine*, col. 5, lns. 24-30.) *Surine* states that "the size of the RAM 315 is minimized by running the majority of the software of embedded system 300 (e.g., boot code 401 and operating system code 403) from ROM 310 . . . [and] running the most frequently-used software . . . from RAM 315." (*Id.*) Thus, *Surine* when confronted with the problem of reducing "the amount of expensive RAM needed in the embedded system of a device" (*Id.*, col. 2, lns. 37-40) uses one memory (ROM) to minimize the size of another memory (RAM). *Raychadhuri*, on the other hand, teaches, "The buffer size is determined by the bit-rate of the call . . . and allocated at call set-up." (*Raychadhuri*, col. 7, lns. 55-60.) In that regard, *Raychadhuri* and *Surine* each teach different and mutually exclusive ways to manage a device's memory. There is no suggestion in either reference to combine these two mutually exclusive methods. Therefore, applicants

respectfully submit that one skilled in the art would not be motivated to combine the references for at least the foregoing reason.

Furthermore, *Surine* teaches using a RAM 315 having a fixed "capacity of approximately 4MB." (*Surine*, col. 4, ln. 65 to col. 5, ln. 1.) At boot-up, write address space is reserved in the RAM 315. (*Id.*, col. 5, lns. 42-45.) The write address space includes capture buffer 414, display buffer 415, and working memory 420. (*Id.*) The size of the write address space is not taught or suggested as changing in response to any condition. The size of the write address space must therefore be presumed to be fixed. Therefore, the portion of the RAM 315 that is used to run uncompressed function 416 is also fixed. (*Id.*, col. 5, ln. 65 to col. 6, ln. 2.) It is anything but obvious to combine *Surine's* fixed allocation buffer scheme after boot-up with *Raychadhuri's* determination of a FIFO buffer size based on the bit-rate at call-setup. Simply put, *Surine* teaches reserving buffers having fixed sizes, while *Raychadhuri* teaches the exact opposite. Therefore, applicants respectfully submit that one skilled in the art would not be motivated to combine *Raychadhuri* and *Surine* as the Examiner has done for this additional reason also.

Further still, *Raychadhuri* teaches reserving a buffer for a constant bit rate (CBR) service only at call setup, which is an entirely distinct event that occurs only after boot-up. (*Raychadhuri*, col. 7, lns. 55-60.) *Surine*, on the other hand, teaches reserving a buffer at boot-up. It is entirely unclear to applicants why one skilled in the art would choose to modify *Raychadhuri* to reserve a buffer size at boot-up, before call setup and without knowing whether a CBR call will be established. Indeed, *Raychadhuri's* choice of when to allocate a particular buffer size cannot be done until after boot-up has taken place and *Raychadhuri's* device is ready to establish

calls. Reserving memory at boot-up is of no concern to Raychadhuri.

The Examiner is able to reach the claimed combination only after having the opportunity to review applicants' claims and disclosure. It is impermissible for the Examiner to use the claimed invention as a template to piece together the teachings of the prior art. *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992).

In responding to applicants' argument that there is no motivation to combine the references in the manner that the Examiner has done, the Examiner asserts that the combination of *Raychadhuri*, *Howe* and *Metz* "would be desirable as the resulting system would allocate enough memory for the received bitstream and insure that a buffer underflow or overflow would not occur which would otherwise result in the improper display of a video image." (Official Action at pg. 3.) The Examiner further asserts that the combination of *Howe*, *Metz*, *Raychadhuri* and *Surine* "would provide an advantageous feature in that *Surine* insures that a buffer would be available as soon as possible upon initialization of the device." (*Id.*) In that regard, the Examiner appears to be relying on the M.P.E.P. which states: "The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by the combination." M.P.E.P. § 2144, at 2100-134. The Examiner, however, has not pointed to any "established scientific principles or legal precedent" for supporting his assertion that the references as combined would be desirable or would provide an advantageous feature. "[W]hen an examiner relies on a scientific theory, evidentiary support for the evidence and meaning of that theory must be provided." *Id.* § 2144,

at 2100-135. The Examiner provides no evidentiary support for his line of reasoning or conclusions. Indeed, the Examiner simply points to *Raychadhuri* and *Surine* for their individual teachings and concludes that it would be desirable to combine them precisely as applicants' claim.

Further in this regard, the Examiner attempts to make up for the lack of suggestion or motivation in the references by arguing it would be desirable to combine the references and that an advantageous feature would result from this combination. It is unclear to applicants how the Examiner concludes that the references as combined would be desirable or provide an advantageous feature when the four references that he relies on do not provide even the slightest hint that such a feature would be desirable in view of the various objects and advantages discussed in the references. Applicants respectfully submit that it is only applicants' disclosure and claims that provide the basis for the Examiner to conclude that it would be desirable and advantageous to have a system that includes the features such as preventing buffer underflow or overflow and insuring that a buffer be available as soon as possible. Most notably, the Examiner cannot point to any of the references to show the additional advantage of preventing underflow or overflow by insuring that the optimal buffer size is available upon boot up. It is only applicants' disclosure and claims that disclose and claim these features.

In view of the foregoing, applicants respectfully submit that claims 1, 7 and 13 are not rendered obvious by the combination of *Howe*, *Metz*, *Raychadhuri*, and *Surine*. Inasmuch as all the other claims in the application, namely, claims 4-6, 10-12, and 14-23 depend from either claim 1, 7 or 13, these claims are also not rendered obvious by the combination of *Howe*, *Metz*, *Raychadhuri*, and *Surine* for at least the foregoing reasons.

In view of the above, each of the presently pending claims in this application is believed to be in immediate condition for allowance. Accordingly, the Examiner is respectfully requested to withdraw the pending final rejection of the claims and to pass this application to issue. If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that the Examiner telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

Dated: May 26, 2005

Respectfully submitted,

By

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